



## Leptin, PEGylated, mouse recombinant (rmLeptin-PEG)

**Catalog No:** 08540  
**Lot No:** XXXXX  
**Source:** *E. coli*  
**Synonyms:** OB Protein, Obesity Protein, OBS, Obesity factor

### Background

A 16-kDa peptide hormone secreted from white adipocytes and implicated in the regulation of food intake and energy balance. Leptin provides the key afferent signal from fat cells in the feedback system that controls body fat stores.

### Description

Leptin mono-pegylated mouse recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 146 amino acids and an additional Ala at N-terminus. Pegylated mouse leptin contains PEG 20 kDa at its N-terminus and is having a molecular mass of 35.6 kDa as determined by mass spectrometry. Since its enlarged hydrodynamic volume pegylated leptin runs on SDS-PAGE as a 48 kDa protein and in gel-filtration on Superdex 200 as over 100 kDa protein.

### Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

### Formulation

The mouse leptin was lyophilized from a concentrated (0.65 mg/ml) solution containing 0.003 mM NaHCO<sub>3</sub>.

### Solubility

It is recommended to reconstitute the lyophilized leptin in sterile 0.4% NaHCO<sub>3</sub> adjusted to pH-8.5 not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

### Stability

Lyophilized leptin, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution leptin should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Purity

Greater than 99.0% as determined by (a) Analysis by Gel-Filtration, (b) Analysis by SDS-PAGE.

### Activity

Pegylated mouse Leptin is capable of stimulating proliferation of BAF/3 cells stably transfected with the long form of human leptin receptor. Pegylated mouse Leptin in vitro activity is only slightly lower than the non-pegylated antagonist but in vivo it has profound weight reducing effect (as compared to the non-pegylated leptin), resulting mainly from reduced food intake.

### Usage

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